

Notice of Allowability

Application No.

10/750,638

Applicant(s)

JANG ET AL.

Examiner

Tianjie Chen

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Petition filed on 12/03/2007.
2. ☒ The allowed claim(s) is/are 13-18.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


TIANJIE CHEN
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

- In Specification, p. 3, line 4; "reduced" has be changed to --increased--.

Reasons for Allowance

2. Claims 13-18 are allowed.

The following is an examiner's statement of reasons for allowance:

- With regard to independent claim 13, as the closest reference on record, Subrahmanyam (US 7,006,331) discloses a head gimbal assembly (HGA) for a hard disk drive, comprising: a flexure; a head slider mounted on the flexure and including a stainless steel lamina with a front edge, a side, and a rear, and providing for a read pair (R-, R+) and a write pair (W-, W+) of electrical connections; a pair of dabs of non-conductive epoxy generally disposed in the gaps between the front and side, a pair of dabs of conductive epoxy generally disposed in the gaps between the rear and sides, and a read-write head structurally attached to the head slider by the pair of dabs of non-conductive epoxy, and grounded for electrostatic protection by the pair of dabs of conductive epoxy; **but fails to show** a group of dielectric-material ridges disposed on said stainless steel lamina, and set orthogonal to one another along the side, front, and rear

edges, all on an underside of the head slider; a pair of dabs of non-conductive epoxy generally disposed in the gaps between the front and side ones of the group of dielectric-material ridges near said front edge, and having an electrical resistance in the range of 3K to 12M ohms; a pair of dabs of conductive epoxy generally disposed in the gaps between the rear and side ones of the group of dielectric-material ridges near said rear edge, and having an electrical resistance of less than fifty ohms, and subject to dielectric breakdown when impressed with 1-5 volts; and a read-write head insulatively supported by the group of dielectric-material ridges, and structurally attached to the head slider by the pair of dabs of non-conductive epoxy, and grounded for electrostatic protection by the pair of dabs of conductive epoxy; wherein, such construction reduces the head and the slider's exposure to severe electrostatic discharge (ESD) events and dissipates electrostatic voltage charges on the head.

- Applicant asserts: this invention provides an interconnect that may reduce a head and head slider's exposure to electrostatic discharge (ESD) events and may dissipate electrostatic charging of the head. This invention may provide a improved signal to noise ratio during data read/write operations (Specification, p.3)

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


TIANJIE CHEN
PRIMARY EXAMINER